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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/685,304	10/10/2000	Wen-Shi Huang	00766	4350

7590 06/20/2003

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EXAMINER

ADDISON, KAREN B

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 06/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/685,304

Applicant(s)

HUANG ET AL.

Examiner

Karen B Addison

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,5,8,9 and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the irregular lumpy edge must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 9 and 11 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The applicant's drawing and specifications fail to disclose the rotor and stator cylinder having irregular lumpy edge comprising a plurality of concave surfaces and a plurality of convex portions.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1,4 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over APA in view of Yamada (JP9-56092).

APA discloses a structure for magnetizing a unitary rotor magnet of a motor comprising: a rotor (12) and a stator (11) wherein the stator comprise a plurality of silicon steel sheets (111) that is symmetrical for the purpose of changing the air gap. However, APA do not disclose a rotor having continuous curve surfaces comprising a plurality of continuous curve surfaces, each curve surfaces having convex and concave portion. Yamada discloses a permanent magnetic motor in fig. A-A comprising: a rotor (3) being a unitary magnet cylinder bounded by an inner surface and an outer surface, wherein at least one of the surfaces is unitary having continuous curve surfaces and convex (3f) and concave (3g) curve portions for the purpose of improving torque. Therefore, it would have been obvious to one having ordinary skill in the art at the invention was made to modify the permanent magnet motor of APA with the rotor structure of Yamada for the purpose of improving the torque output from the rotor.

2. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over APA in view of Yamada as applied to claim 1,4 and 8 above, and further in view of Pletscher(1566693).

3. As seen in paragraph number 3 above, APA discloses a motor comprising: a unitary rotor magnet and a stator. Yamada discloses a rotor being a unitary magnet cylinder bounded by an inner surface and an outer surface. However, neither APA nor Yamada discloses a stator being a unitary magnet cylinder bounded by an inner and outer continuous curve surface with a plurality of concave and convex surfaces. Pletscher teaches in fig.12 a motor comprising stator and a rotor wherein the rotor (A) comprises coils that may be made stationary (pg.3 Col.1, line 5-9) for the purpose of reducing manufacturing cost. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the motor of APA and Yamada with the teaching of Pletscher for the purpose of reducing manufacturing cost.

4. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over APA in view of Tetsuo (JPO2119544).

As seen in paragraph number 3 above, APA discloses a motor comprising: a unitary rotor magnet (12) and a stator (11). APA does not disclose a rotor being a unitary magnet with an irregular lumpy edge comprising concave and convex portions with a lumpy edge.

convex surfaces for the purpose of increasing the holding power when the rotor is turned at high speed. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the motor of APA with the rotor of Tetsuo for the purpose of reducing cogging torque between the stator frame and the rotor frame and to enable correspondence to revolution at high speed by continuously connecting fixed protrusions.

4. Claims 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over APA in view of Tetsuo as applied to claim 9 above, and further in view of Pletscher (1566693).

As seen above in paragraph 4, APA discloses a motor comprising: a unitary rotor magnet (12) and a stator (11). Tetsuo discloses a magnetic cylinder with an irregular lumpy edge comprising a plurality of concave and convex surfaces. Neither APA nor Tetsuo discloses a stator being a unitary magnet cylinder with an irregular lumpy edge comprising a plurality of concave surfaces and a plurality of convex surfaces.

Pletscher teaches in fig.12 a motor comprising stator and a rotor wherein the rotor (A) comprises coils that may be made stationary (pg.3 Col.1, line 5-9) for the purpose of reducing manufacturing cost. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the motor of APA and Tetsuo with the teaching of Pletscher for the purpose of reducing manufacturing cost.

Response to Arguments

5. Applicant's arguments with respect to claims 1,4-5 and 8 have been considered but are moot in view of the new ground(s) of rejection.

In response to the applicant's argument of claims 9 and 11 that "Tetsuo fails to show a rotor with an irregular lumpy edge "is noted.

However, Tetsuo clearly shows in fig.3. a rotor with an irregular lumpy edge. The rotor structure is irregular because, the surface of the rotor is convex and concave.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Application/Control Number: 09/685,304
Art Unit: 2834

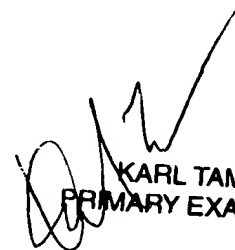
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen B Addison whose telephone number is 703-306-5855. The examiner can normally be reached on 8:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on 703-308-1317. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3431 for regular communications and 703-305-3431 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

KBA
June 16, 2003


KARL TAMAI
PRIMARY EXAMINER